

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 1. (Currently amended) An apparatus for supporting one or more servers
2 on a single semiconductor chip, comprising:
3 a plurality of first-level translation lookaside buffers on the single
4 semiconductor chip, wherein each first-level translation lookaside buffer is
5 associated with a processor core of a plurality of processor cores on the single
6 semiconductor chip; and
7 a second-level translation lookaside buffer that is coupled to the plurality
8 of first-level translation lookaside buffers, wherein the second-level translation
9 lookaside buffer stores a subset of the entries in the plurality of first-level
10 translation lookaside buffers;
11 wherein an access to a page table entry in main memory by a processor
12 core associated with a first-level translation lookaside buffer can be stored in the
13 second-level translation lookaside buffer before being forwarded to the first-level
14 translation buffer associated with the processor that requested the page table entry;
15 whereby storing the page table entry in the second-level translation
16 lookaside buffer eliminates a need to refer to main memory to access the same
17 page table entry if another processor requests the same page table entry.